

ABSTRACT

The present invention generally relates to a system for cleaning substrates. More particularly, the present invention relates to process(es) for effecting chemical removal of residues from semiconductor substrates, including silicon wafers, using a system of reactive reverse micelle(s) or microemulsions in a densified carbon dioxide matrix. Various reactive chemical agents in the reactive micelle system may be used to effect cleaning and removal of etch and metal residues to levels sufficient for commercial wafer production and processing.